AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-62 (Cancelled)

63. (Currently Amended) A method of passing received Internet Protocol (IP) data packets through a network device, said method comprising:

constructing within said network device a chunk ~~as a substantially fixed quantity of data~~ with a payload that is sized to fit more than one of said IP data packets;

formatting said chunk to include at least one of:

a forward error correction (FEC) code; and

a cyclical redundancy check (CRC) code;

filling said payload of said chunk with a portion of at least one said IP data packet;

including a framing symbol in each said chunk; and

passing said chunk through ~~an optical~~a switch fabric of said network device.

64. (Previously Presented) The method of claim 63 further comprising inserting said framing symbol adjacent to the trailing end of said chunk.

65. (Previously Presented) The method of claim 63 wherein said passing comprises using said framing symbol to determine uniquely within a stream of bits the beginning and the trailing end of said chunk.

66-69. (Cancelled)

70. (Previously Presented) The method of claim 69 further comprising using said FEC encoded in each said chunk to detect and correct errors in said chunk.

71. (Previously Presented) The method of claim 70 further comprising using said CRC encoded in each said chunk to determine that the entire said chunk has a proper CRC value.

72. (Previously Presented) The method of claim 63 further comprising:

formatting said chunk to include a scrambler seed, and wherein said formatting comprises using said scrambler seed in said chunk to balance zeroes and ones and to minimize run lengths of zeroes and ones by scrambling bits across said chunk.

73. (Previously Presented) The method of claim 63 further comprising:

formatting said chunk to include a "Break Bytes" field and a "Make Bytes" field, said fields configured to precondition an optical receiver prior to the arrival of said chunk.

74. (Previously Presented) The method of claim 73 wherein said "Break Bytes" field and said "Make Bytes" field are programmable in length.

75. (Previously Presented) The method of claim 73 wherein said passing comprises using said "Break Bytes" and said "Make Bytes" field to precondition on optical receiver prior to the arrival of a chunk.

76. (Cancelled)

77. (Previously Presented) The method of claim 75 wherein "Make Bytes" field reestablishes a decision threshold level of a limiting amplifier within a burst mode optical receiver.

78. (Previously Presented) The method of claim 63 further comprising: formatting said chunk to include adding a chunk header.

79. (Previously Presented) The method of claim 78 wherein said chunk header includes identification of chunk type.

80. (Previously Presented) The method of claim 78 wherein said chunk header includes a header parity.

81. (Previously Presented) The method of claim 78 wherein said chunk header includes an indication that said chunk is a master chunk.

82. (Previously Presented) The method of claim 78 wherein said chunk header includes a sequence number.

83. (Previously Presented) The method of claim 82 further comprising:
performing error detection and correction using said sequence number in said chunk header for alarming and for alerting that a chunk potentially was corrupted.

84. (Previously Presented) The method of claim 83 wherein a re-initialize bit is used to enable reinitialization of said sequence number, such that said alarming is avoided.

85. (Cancelled)

86. (Previously Presented) The method of claim 63 wherein said chunk contains multiple data packets.

87. (Previously Presented) The method of claim 63 wherein said sized chunk contains a segment of a data packet, said data packet having a length greater than the size of said chunk.

88. (Currently Amended) An Internet Protocol (IP) packet router, said router comprising:

at least one chunk having a payload comprising a plurality of IP data packets and a framing symbol; and

~~an optical~~ a switch fabric through which said chunk passes;

wherein a respective chunk includes at least one of:

a forward error correction (FEC) code, and

a cyclical redundancy check (CRC) code.

90. (Previously Presented) The IP packet router of claim 88 wherein said framing symbol is located adjacent the trailing end of each said chunk.

91. (Cancelled).

92. (Cancelled)

93. (Cancelled)

94. (Cancelled)

95. (Previously Presented) The IP packet router system of claim 88 wherein said FEC coding is located adjacent to and following said framing symbol.

96.-100. (Cancelled)

101. (Previously Presented) The IP packet router claim 88 wherein each said chunk is formatted to include a chunk header.

102. (Previously Presented) The IP packet router of claim 101 wherein said chunk header includes identification of chunk type.

103. (Currently amended) The IP packet router claim 101 wherein said ~~optical~~ switch fabric is partitioned into a plurality of working subplanes.

104. (Previously Presented) The IP packet router claim 103 wherein said chunk header includes identification of a specific routing subplane through said switch fabric.

105. (Previously Presented) The IP packet router of claim 101 wherein said chunk header includes a header parity.

106. (Currently amended) The IP packet router of claim 101 wherein said chunk header includes identification of an input of said ~~optical~~ switch fabric and an output of said optical switch fabric for said chunk.

107. (Previously Presented) The IP packet router system of claim 101 wherein said chunk header includes a master chunk bit.

108. (Currently Amended) An Internet Protocol (IP) packet router system, said system comprising:

at least one chunk having a payload comprising a plurality of data packets and a framing symbol; and

an IP packet router, including:

~~an optical~~a switch fabric through which said chunk passes; and,

a first electrical switch stage at an input side of said ~~optical~~ switch fabric and a second electrical switch stage at an output side of said switch fabric,

wherein each said chunk is formatted to include a chunk header and at least one of:

a forward error correction (FEC) code, and

a cyclical redundancy check (CRC) code, and

wherein said chunk header includes a sequence number.

109. (Previously Presented) The IP packet router system of claim 88 wherein said payload of said at least one chunk further comprises at least one packet segment and an associated packet header.

110.-111. (Cancelled)

112. (Currently Amended) A method of information flow through an IP packet network system device, said method comprising:

encapsulating within said network device input IP data packets from a plurality of source ports into ~~substantially fixed sized~~ chunks, wherein a respective chunk includes at least one of:

a forward error correction (FEC) code, and

a cyclical redundancy check (CRC) code;

formatting overhead information onto each of said chunks, said overhead including a framing symbol;

sending said chunks to ~~an optical~~a switch plane of said IP network device.

113. (Currently amended) The method of claim 112 further comprising:

converting said directed chunks into electrical signals;

sending said chunks from said ~~optical~~ switch plane;

performing error detection and error correction on said chunk;

removing said overhead information from said chunks; and

reassembling said input data packets out of said chunks.

114. (Currently amended) The method of claim 112 wherein all information flows through said switch plane in said ~~substantially fixed sized~~ chunks.

115. (Currently amended) The method of claim 112 further comprising:

formatting said chunks to include ~~adding~~ a chunk header.

116. (Previously Presented) The method of claim 115 wherein said appropriate switch plane is one of a plurality of subplanes comprising a portioned switch fabric.

117. (Previously Presented) The method of claim 116 wherein said chunk header includes identification of a specific routing subplane through said switch fabric.

118. (Previously Presented) The method of claim 117 wherein said directing comprises using said identification in said chunk header of a specific routing subplane to route said chunks through said switch fabric.

119. (Currently amended) The method of claim 115 wherein said chunk header includes identification of an input of said appropriate ~~optical~~ switch plane and an output of said appropriate ~~optical~~ switch plane for said chunk.

120. (Currently amended) The method of claim 119 wherein said directing comprises using said identification in said chunk header of said input and said output to route said chunks through said ~~optical~~ switch plane.

121. (Previously Presented) The method of claim 119 further comprising:

performing error detection and correction using said identification in said chunk header of said input and said output to verify the route of said chunks from said input and said output.

122. (Previously Presented) The method of claim 115 wherein said chunk header includes identification of chunk type.

123. (Previously Presented) The method of claim 122 wherein said directing comprises using said identification of chunk type in said chunk header to enable guaranteed bandwidth chunks to pass ahead of best effort chunks through said switch plane.

124. (Currently amended) The method of claim 112 wherein said ~~optical~~ switch plane is part of ~~an optical~~a switch fabric.

125. (Currently amended) The method of claim 112 wherein said ~~electrically switching~~sending comprises using said framing symbol in each said chunk to determine uniquely within a stream of bits a beginning and a trailing end of each said chunk.

126. (Previously Presented) The method of claim 63, further comprising:

stripping said IP data packets from said chunk within said network device.

127. (Currently amended) The IP packet router of claim 88, further comprising:

a first stage at an input side of said ~~optical~~ switch fabric and a second stage at an output side of said switch fabric,

wherein said first stage is operable to construct said chunk, and said second stage is operable to strip said data packets from said chunk.